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ABSTRACT

This resource directory is designed to serve as a guide for vocational educators who are in need of additional instructional material for use in teaching mathematics or vocationally oriented mathematics in their classes. Provided first is a user's guide that outlines the purpose and organization of the directory and gives instructions for its use. The next section of the directory is a guide to information concerning the title, author, source, content, and cost of resource materials arranged under the following topics: general mathematics, mathematics for vocational-technical instruction, mathematics for individual programs, practical mathematics, advanced mathematics, and measurement and the metric system. Concluding the directory are an annotated list of teacher resource materials and an alphabetical list of publishers. A chart of generalizable mathematics skills is appended to the directory. (MN)

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Generalizable Mathematics Skills Resource Directory

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User Guide

Purpose of the Resource Directory

The need for a solid foundation in the "basic skills" is becoming increasingly important for all students. Students in vocational programs have typically lagged behind in these skills. However, provisions for incorporating mathematics into vocational program are not always available.

This Resource Directory is designed to serve as a resource guide for vocational educators who need additional instructional material in the teaching of mathematics or vocationally-oriented mathematics in their classes. It has been prepared to assist vocational teachers, resource teachers, and others who comprise the vocational education core. Although the resources are not an exhaustive compilation of materials, it is hoped that the directory will serve as an initial search for educators interested in identifying and evaluating supplementary materials.

Organization of the Resource Directory

This directory is divided into five major sections. The sections include: (a) the User Guide, (b) Mathematics Resources Materials, (c) Teacher Resource Materials, (d) List of Publishers, and (e) Appendix (list of generalizable mathematics skills).

The User Guide explains the organization and use of the manual. The Mathematics Resource Materials section is divided

into topic areas such that the user may easily find specific resources. In addition, there is a section with blank pages for adding additional resources. The Teacher Resource Materials section includes those materials which may assist in the teaching of mathematics materials. The List of Publishers locates the source of the materials listed in both resource materials sections. The Appendix illustrates a chart of generalizable mathematics skills by vocational program area. A generalizable mathematics skill is a skill which is basic to, necessary for success in, and transferable (or common) within and/or across vocational programs.

The following discussion provides further explanation regarding the organization of the resource directory.

Mathematics Resource Materials

This resource section is composed of references that are books, articles, or multi-media in format. Each resource has been annotated according to the information that has been given by the source or publisher. No attempt has been made to offer judgment as to its merit.

The resources were chosen as to their applicability to middle, junior high and high school students. A special effort was made to locate materials appropriate for working with special needs students. In addition, mathematics resources specifically with a vocational-technical orientation were included.

The resource materials are listed in the following format and provide the following information:

Title: Listed alphabetically within each section.

Author: Developer, editor, or agency.

Source: Distributor of the material. Complete address of this source may be found in the List of Publishers section of the directory.

Description: A brief explanation of the purpose of the resource material, as well as some discussion of the topics covered are included. If possible, the target audience level is mentioned. When a prerequisite is recommended, this stipulation is listed.

Cost: The price at the immediate left margin is the list price given by the publisher or source. When a net price or school price is also listed, this appears after the slash (/). In addition, there may be an Instructor's Guide or Teacher's Manual available. In this case, it will be listed as "I.G." with the price when available. Answer Keys or other related documents are also listed when mentioned by the publisher or source. These may have a cost or may be at no charge with the order. Often there is a discount for quantity or school orders. (Please check with the publisher regarding the current cost, since costs are subject to change periodically.) If no price has been listed, then "N/L" will appear.

An example of the resources is listed below:

Title: TECHNICAL MATHEMATICS

Author: H.S. Rice and R. M. Knight

Source: Gregg/McGraw-Hill

Description: This introductory mathematics text is designed for beginning engineering technology students. Emphasizing problem solving, it teaches them to grasp fundamentals rather than simply memorizing formulas. PREREQUISITE: Elementary algebra is recommended.

Cost: $21.50/17.20 I.G. $3.00
Answer Key $3.00

The resources are divided into the following categories:

1. General Mathematics: These include mostly basic mathematics skills texts which cover the fundamental mathematics concepts.

2. Mathematics for Vocational-Technical Instruction: These include mathematics texts whose focus and practical problems are geared toward examples from the industrial trades.

3. Mathematics for Individual Programs: These references are texts whose specific focus is the mathematics to be used for a specific program.

4. Practical Mathematics: These texts use practical examples from everyday living to illustrate mathematics concepts and include consumer mathematics and mathematics for everyday living.

5. Advanced Mathematics: These materials include the fundamentals of algebra, geometry and calculus and may be used as supplementary texts; some are geared toward a vocational-technical orientation.

6. Measurement/Metrics: These resources are specifically focused toward measurement concepts, both in English systems and the SI metric system.

7. Additional Resource Materials: This section includes blank pages for adding resources not found in this directory. The directory includes a sample of potentially available materials. Most of the included materials were gleaned from publishers' catalogs, the ERIC Clearinghouse system, and published articles. Other sources will no doubt yield additional resources. It is hoped that this provision will lend to the dynamic character of this directory as a teacher resource.

Teacher Resource Materials

The materials in this section cover many potential areas of assistance. Included are teacher education materials, references on vocational special needs, and other directories. There are also some examples of recent studies which are concerned with

the topics of generalizable mathematics skills and mathematics assessment in the vocational curricula.

List of Publishers

These sources are listed alphabetically, such that the source of a specific title in the Mathematics Resource Materials section may be easily located and written to for further information. Many commercial publishers offer a 30-day approval basis for examination of the materials at no charge. Materials may be simply requested "on approval". Further, publishers are usually willing to supply catalogs of their materials. There is often a discount for orders of multiple copies of the materials, and the Instructor's Guide is sometimes included free of charge.

Appendix A: Generalizable Mathematics Skills

The chart in Appendix A represents those generalizable mathematics skills which were identifed and validated in vocational programs and occupations. The Appendix has been included as a reference to assist in identifying the specific mathematics skill areas needed for proficiency in a particular vocational program (see Teacher Resource, "Identification of Generalizable Skills" for the complete study).

Mathematics Resource Materials

ARITHMETIC DRILL: ADDITION, SUBTRACTION AND MULTIPLICATION
J. Kingman and R. Swenson
EMC Publishing

This is a microcomputer software program which specifically drills addition, subtraction and multiplication skills. The level of difficulty of the program automatically adjusts to match the student's performance. It is geared toward elementary level.

$27.95 Apple II Plus, 1 diskette
$40.45 with backup diskette
$27.95 TRS-80, 1 diskette
$40.45 with backup diskette
$27.95 TRS-80 III, 1 diskette
$40.45 with backup diskette

ARITHMETIC POWER
C. Stugart
Mafex Associates

Four mathematics drill workbooks provide ample repetition and reinforcement to insure mathematics skill development. Each workbook contains over 100 pages of arithmetic problems and number combinations. Average of 72 problems per page are included. Each book contains survey tests and work with zeroes. The titles include: Adding Numbers, Subtracting Numbers, Multiplying Numbers, and Dividing Numbers.

$4.95 each I.G. $5.95 each

ARITHMETIC THAT WE NEED
T. Mooney
Frank E. Richards Pub. Co.

This resource is a 64-page book of arithmetic exercises selected from a series of books earlier published. These exercises are of intermediate achievement level.

$2.75 I.G. $2.75

ARITHMETIC THE EASY WAY

Chaselle Inc.

This clearly written, complete worktext provides hands-on exercises in all four basic operations, fractions, and decimals. It is geared toward grades 7 through 12 with a 4.5 to 6.5 reading level. Exams and answers are included. 401 p.

$6.95

BACK TO BASICS FROM ADDITION TO DIVISION

Chaselle, Inc.

This activity book is designed to boost confidence as it builds mathematics skills. Working at their own pace, students from 7-12 grade test themselves to find out where they need practice. Many reinforcement examples are provided. 320 p.

$4.95

BASIC ARITHMETIC
Lewis and Smyth (1983)
Prentice-Hall

This self-paced, non-programmed approach provides a complete course in basic arithmetic. It is appropriate for either the first time learner or review at all levels. Skills are broken down into small components and presented in a step-by-step manner. Many examples are presented and then re-presented to ensure student understanding before attempting exercises. The book is enhanced by a conversational writing style and daily life applications. 544 p.

$ N/L

BASIC COMPUTATION SKILL-BUILDING LIBRARY

Chaselle, Inc.

This library consists of five sets of reproducible drill sheets which cover the necessary skills of computation step-by-step and then provides many carefully sequenced computation practice problems. The library is available as a set or by individual titles.

$39.50 set
$7.95 each — Working With Whole Numbers
Understanding Fractions
Working With Fractions
Working With Decimals
Working With Percents

BASIC ESSENTIALS OF MATHEMATICS, 2nd edition

J. T. Shea
Steck-Vaughn Company

Fundamental mathematics instruction geared toward the adult level is provided by this two-part worktext program. Clear explanations, sample problems, plentiful exercises, reviews, and progress tests are included. Part 1 stresses addition, subtraction, multiplication, and division using whole numbers, common fractions, and decimal fractions. Part 2 includes a study of percent, measurement, ratio and proportion, and simple algebraic equations. Mastery tests are included with each book. Answer keys are available with class quantity orders.

$2.61

BASIC MATH

Prentice-Hall Media

This series of six filmstrips with cassettes and program guide covers six basic mathematics areas: whole numbers, introduction to fractions, calculations with fractions, decimals, percentages, ratio and proportion. Each unit clearly defines the concept, presents examples, and examines the mechanics involved in utilizing the concepts.

$259 (6 filmstrips, 6 cassettes, program guide)

BASIC MATHEMATICAL SKILLS
T. G. Smithsi (1974)
Prentice-Hall

This text provides a semi-programmed work-book approach with step-by-step solutions. Two-column pages make for easier reading and comprehension. Methods are developed intuitively, by sketches, numberline applications, and gradually progressing to the traditional method. It provides a very important link between modern mathematics and the traditional. Includes whole numbers and processes as well as fractions, decimals, and percents. 332 p.

$16.95

BASIC MATHEMATICS AND ALGEBRA WITH APPLICATIONS
M. W. Keller and J. H. Zant (1984)
Houghton Mifflin

This text is a developmental mathematics program which combines a review of basic mathematics with a review of elementary algebra. Included in the edition is an objective-referenced organizational structure which links all lessons, practice problems, and test items. Step-by-step computational processes are presented alongside of worked-out examples. Learning is reinforced by practice sets. All problems are presented in a "situational style", that is completely free of ethnic bias and complete devoid of sex stereotypes. The Instructor's Edition includes all answers to all problems. 640 p.

$ N/L I.G. $ N/L

BASIC MATHEMATICS: ARITHMETIC WITH AN INTRODUCTION TO ALGEBRA, 2nd Edition
D. R. Kerr, Jr. (1980)
Gregg/McGraw-Hill

This basic text seeks to achieve a solid understanding of mathematics by building upon and progressing from first principles. It also contains an introduction to the algebra of linear equations and a thorough development of the arithmetic of measurement which emphasizes the metric system. Examples are followed with exercises to check immediate understanding. 544 p.

$18.50/14.80 I.G. $6.50 net

BASIC MATHEMATICS CURRICULUM

Love Publishing Co.

This mathematics package is composed of worksheet packets in each of the major operations and separate ones for each of the operations with fractions. A pretest places the student. The practice pages of the book increase in difficulty and culminate in self tests, allowing students to evaluate their progress before receiving the teacher-administered mastery test. Spirit masters versions are available for each section, and the basic operations are available in book format as well.

$79.95 complete kit of spirit masters books

BASIC MATHEMATICS REVIEW, 2nd Edition
Gossage
Southwestern Publishing Co.

Eighty practice exercises are contained in this text-workbook. Each exercise is followed by a test that covers the new principles and practical applications presented in the exercise. A final examination is provided at the end of the book. Exercises dealing with the metric system have been included. This text-workbook is an ideal review of the fundamentals of mathematics. It is suitable for group or individual study. A teacher's manual is available.

$4.67

BASIC MATHEMATICS SIMPLIFIED, 4th Edition
C. T. Olivo & T. P. Olivo
Delmar Publishers, Inc.

This two-part textbook is designed to develop basic mathematical skills through discussion of the concept, statement of rules, step-by-step examples and immediate application. The Fundamentals Edition contains basic mathematics as they relate to whole numbers, fractions and decimals, with sections on measurement, percentage, finance and graphs. Metrics are also discussed. The Combined Edition contains everything in the Fundamentals Edition, with the addition of more advanced topics in algebra, geometry, trigonometry, and the use of the electronic calculator. There is also a special section on consumer applications.

$21.00/15.75 Combined Edition I.G. $4.10
$10.40/7.80 Fundamentals Edition

BASIC MATHEMATICS SKILLS
C.C. Castellano
Arco Publishing Inc.

This book assumes no prior instruction in mathematics and presents a complete course in the essentials of this subject. Starting with addition, subtraction, multiplication and division of whole numbers, students are lead slowly and simply through the study of fractions, mixed numbers, percents and decimals, ending with the basic concepts of elementary algebra and geometry. Each section provides a detailed explanation of the topic, plenty of exercises for practice and a short test for self-evaluation, with a comprehensive review at the end of the book. Solutions are provided for all practice questions. This book is especially designed to assist in preparation for the GED tests, although it is also suitable for classroom use. 192 p.

$6.95

BASIC MATHEMATICS SKILLS
A. Treff and D. Jacobs
Media Materials, Inc.

This resource is designed for those students who have been exposed to the concepts of modern mathematics but who need some additional instruction and reinforcement in the basic skills. The "no frills" approach emphasizes mastering necessary skills through a wealth of drill exercises in all the basic operations. Scale drawing, units of measure and graphs are also covered.

$12.95 text

BASIC MATHEMATICS: SKILLS AND STRUCTURE
J. F. Haldi (1978)
Houghton Mifflin

This resource is a worktext which emphasizes an intuitive, discovery approach to learning. The text offers complete coverage of important developmental topics, including a thorough review of arithmetic and introductions to elementary algebra, geometry, and right-angle trigonometry. The book is designed such that topics can be arranged in any order to meet the varying needs of liberal arts students who require a refresher course in arithmetic or an introduction to algebra, and of vocational students who need the basics plus algebra, geometry, and trigonometry.

$21.95 I.G. N/L

BASIC MATH FACTS COMPETENCY LAB

Chaselle, Inc.

This lab focuses on basic mathematics skills. Cassettes teach each lesson and then guide students through reinforcement exercises in individual activity booklets. The lab is composed of ten self-pacing, self-checking modules to provide practice in basic operations. It is designed to teach basic mathematics skills while improving the ability to follow directions. Included in the set are 10 cassettes, 30 copies of each of the 10 lessons, 10 reproducible post-tests to check skill competencies and teacher's guide. The reading level is grade 2.0-4.0.

$129.50

BASIC MATH SKILLS TEXTBOOK

Chaselle, Inc.

This text combines a low reading level with meaningful illustrations, clear examples and plenty of practical exercises to teach and reinforce basic mathematics skills like working with whole numbers, fractions, decimals, percents, metric system, ratios, graphs, etc. A 129-page comprehensive teacher's guide includes answers and 60 reproducible pages of additional exercises and tests and is available with the class set.

$129.50 set of 10 and I.G.
$12.95 each

BASIC SKILLS IN MATHEMATICS

R. F. Jacobs (1975)
Harcourt Brace Jovanovich

This workbook covers a complete program in the basics, including whole numbers, fractions, decimals and percents. Metrics are incorporated throughout. There is a simple, semi-programmed format with minimal reading plus questions, examples, and self-checking and review exercises for solid skill development. This workbook is available as a single softcover workbook or four separate units, covering the individual skills. A comprehensive testing program is also available. This program can be effectively used for review purposes, also.

$4.95 I.G. $6.00

BASIC SKILLS IN MATHEMATICS SERIES

Opportunities for Learning, Inc.

These spirit duplicating master books provide review of basic rules, sample problems and practice drill for mathematical operations and concepts needed in daily life and in most jobs. Each book contains a Teacher's Manual and Answer Key.

$8.95 each

- Whole Numbers
- Fractions
- Percent and Proportion
- Decimals
- Measurement

BREAKTHROUGH TO MATH

New Readers Press

This mathematics series was developed by educators for teenage and adult minds, but on a fourth-grade reading level. It features a step-by-step approach to allow students to set their own pace. The series consists of four levels covering basic skills with whole numbers; fractions, decimals, and percents; algebra; and geometry. Included are diagnostic exercises to assess student's mathematics skills and determine appropriate level and book of study. Pre-tests, post-tests, and mastery checkup are also included. A Teacher's Directory gives instructional guides for each step of the series, plus test materials. Each set includes all texts, diagnostic exercises and instructional material for each level.

Level 1: $12.95 set
Level 2: $12.95 set
Level 3 & 4: $21.95 set

CASSETTE LEARNING PACKAGE SERIES
W. Jones
Media Materials, Inc.

Each cassette learning package deals with specific operations and comes complete with self-pacing, self-checking cassette lessons, 30 four-page student response booklets, reproducible post-tests and library cards. Each of the learning packages consists of several subtopics, each on a cassette, which are available individually.

$129.50 Using Operations With Whole Numbers (10 cassettes)
$90.65 Using Fractions (7 cassettes)
$77.70 Using Operations With Decimals (6 cassettes)
$51.80 Using Percent Series (4 cassettes)
$51.80 Using Measurement Series (4 cassettes)

COUNTDOWN
O'Neil
Bowmar/Noble Publishers, Inc.

This individualized mathematics program is for students who have already been introduced to the basic concepts and operations of mathematics and are having difficulties in these areas. It concentrates on five skill areas: number concepts, addition, subtraction, multiplication, and division. Pupils are allowed to progress at their own pace through the program. Compatible with any basal mathematics series. Countdown has 50 lessons which are presented on cassette tapes. A set of reusable pupil response folders is included, one folder for each lesson. Plastic counters, which are needed for some lessons, and a box of crayons for use with the plastic folders are also included. A teacher's handbook with instructions comes with the set.

$210.00

DECIMALS AND PERCENT - A MATH PRACTICE BOOKLET
N. K. Herr
New Jersey Vocational-Technical Curriculum Laboratory

The problems in this workbook are designed to help the vocational high school student understand and become adept at working with decimals and percents. Emphasized are the use of decimals in money problems and the application of percents to problems in daily living. Topics covered include: addition, subtraction, multiplication and division of decimals; the interrelationship of percents, decimals, and fractions; and the use of percents in interest and discount problems. Exercises with practical applications (called job assignments) constitute the bulk of the text. Quizzes are also included.

$1.25

ESSENTIAL MATHEMATICS, 3rd Edition
F. G. Lankford Jr. and J. F. Ulrich (1975)
Harcourt Brace Jovanovich

This text is made up of a three part structure that includes basic arithmetic, consumer mathematics, and introductions to algebra and geometry. There is an emphasis on doing to give plenty of practice, with illustrations, examples, and ample practice exercises. Separate workbooks and tests are available.

$8.40 I.G. $2.40

ESSENTIAL MATHEMATICS WITH APPLICATIONS
V. C. Barker and R. N. Aufmann (1983)
Houghton Mifflin

This text reviews the basic computational skills of whole numbers, fractions, decimals, ratios, proportions, and percents, and then discusses applications. Using three approaches, it integrates the mastery of skills, concepts, and applications: the Applied Approach, which enhances student insight into the value of mathematics by encouraging the student to use it as a practical tool; the Interactive Approach, which aids mastery by requiring the student to work problems which are paired with parallel worked examples within the context of the lesson; and the Objective-Referenced Approach, which provides the mechanism for the management of instruction by facilitating the matching of lessons, exercises, and test items.

$12.95

FRACTIONS AND THEIR APPLICATIONS - A MATH PRACTICE WORKBOOK
N. K. Herr
New Jersey Vocational-Technical Curriculum Laboratory

This workbook is intended to help the vocational high school student understand and gain competence in working with fractions. The exercises provide practice in reducing and changing fractions, multiplying and dividing, finding the lowest common denominator and equivalent fractions, adding and subtracting. The types of fractions are also defined. Quizzes and problems with practical applications are utilized in the text to supplement the arithmetic problems.

$1.25

GROWTH IN MATHEMATICS
D. W. Wells, and others (1978)
Harcourt Brace Jovanovich

This comprehensive text covers such basic topics as decimals, percent, area and volume, integers and equations. There is also a thorough review of computational skills. New materials build on what students already know and there are numerous practice exercises in every lesson and at the back of the book. Besides the Teacher's Edition, there are also workbooks, follow-up masters, duplicating masters, Management System Handbooks, and two color sound filmstrips available. The text is available for grade levels 7 & 8.

$8.25 I.G. $12.00

GUIDEBOOK TO MATHEMATICS

Bowmar/Noble Publishers, Inc.

This guidebook is a workbook approach which presents practical mathematics skills. It has been designed for vocational use with junior high and high school students. The text emphasizes functional mathematics skills that students can use on their jobs and in their homes. Subjects covered are addition and subtraction, multiplication and division of whole numbers, fractions, decimals, ratio, proportion, and percentage, graphs and statistics, geometry, and installment buying, budgeting, and banking.

$2.37 I.G. $2.37

HBJ MATHEMATICS
L. J. May, and others (1981)
Harcourt Brace Jovanovich

This text incorporates short, easy to teach lessons in a careful step-by-step progression of skills development. Constant reinforcement and review are aided by puzzles, games, and exercises which stress both computational and problem-solving skills. There is an entire chapter on problem solving, helping students learn how to solve problems and tackle mathematics in their daily lives, such as how to estimate, how to use charts and diagrams, and how to solve multi-step problems. Problems are drawn from real-life situations. Test booklets, workbooks, and duplicating masters are also available. There are separate texts for grades 7 & 8.

$8.85 I.G. $12.00

IMPROVING MATH COMPETENCE
Greenfield and Nogueira
Globe Book Company

This text-workbook for remedial instruction teaches skills in the context of real-life situations. Lessons include objectives for students and examples that clarify basic operations. The book covers mathematics terms, the basic operations, measurement, geometry, percent, graphs, and computation.

$7.63

IMPROVING YOUR ABILITY IN MATHEMATICS
D. R. Eberhart (1975)
Harcourt Brace Jovanovich

This series of worktexts allows students to focus on specific problem areas with this supplementary, individualized review of basic skills. The four softcover, self-directing programs of addition, subtraction, multiplication and division help students target their own needs and work on their own. Each page presents a complete lesson and is easily completed in a single class period.

$1.95 Improving Your Ability to Add Workbook
$1.95 Improving Your Ability to Subtract Workbook
$1.95 Improving Your Ability to Multiply Workbook 1
$1.95 Improving Your Ability to Multiply Workbook 2
$2.25 Improving Your Ability to Divide Workbook 1
$2.25 Improving Your Ability to Divide Workbook 2

INTRODUCTION TO MATHEMATICS
C. C. T. Baker
Arco Publishing Inc.

This resource is an introduction to basic mathematics which covers all the basic topics and gives a useful introduction to the new trends in mathematics. Many illustrations are included throughout. 160 p.

$1.65

KEY IDEAS IN MATHEMATICS 1 and 2
W. Gerardi, and others (1974)
Harcourt Brace Jovanovich

This slower-paced, step-by-step, two year program gives junior high level students a solid background in mathematics principles. Each lesson is complete on two pages; there is minimal reading with examples, illustrations, and exercises being the emphasis. An abundance of visuals, such as cartoon characters, drawings, and keys explain topics, add emphasis, and provide insight at critical points. Built-in maintenance, practice, review, and assessment assist comprehension. Practice workbooks are also available.

$7.80 per text I.G. $8.79

KEY IDEAS IN MATHEMATICS: CONCEPTS AND APPLICATIONS
W. J. Gerardi, and others (1974)
Harcourt Brace Jovanovich

Each lesson in this text is complete on two pages and presents one major idea. It is organized around a single concept or operation - the key idea. An easy-to-read format uses minimal discussion, but an abundance of illustrations, examples and exercises to make learning easy. Besides all the material normally covered in 9th grade general mathematics are applications - motivational features enabling students to apply skills in real-life situations. Tests and workbooks are also available.

$8.55 I.G. $9.54

LEARNING MATH VISUALLY
J. T. Cwirko-Godycki and J. E. Karczmarczyk
Midwest Publications

This series of three reproducible books offers highly creative workbook activities in the fundamental skills of multiplication, division, and fractions. The books aid the students in grasping, practicing, and problem-solving within each skill. The activities are diverse, entertaining, and in most cases involve a short solution period to keep student interest high. The visual, nongraded, low-read format gives the books a wide range of application with any student. Diagrams and illustrations clearly portray the problem to be solved.

$4.75 each Fractions-1
Multiplication-1
Division-1

LEARNING TO COMPUTE 1 and 2

Harcourt Brace Jovanovich

These two softcover workbooks are designed for quick diagnosis of skill weaknesses. A format of test-practice-test allows students to work independently to diagnose their own weaknesses and remedy them. Short tests, clear explanations, and much practice cover the areas of operations with whole numbers, fractions, decimals, and percents. Additional practice is given to include word problems and real-life problem areas. Book 2 covers the same skills as Book 1 but at a faster pace. The Teacher's Manual contains quizzes, unit tests, and various record-keeping forms to help keep track of each student's progress.

$3.30 Book 1 I.G. $1.65
$3.60 Book 2

MATH COMBINATIONS PROGRAM
A. M. Hofmeister, and others
C.C. Publications, Inc.

The Math Combinations Program is designed to teach students to add, subtract, multiply, and divide all the basic counting numbers. Each session takes approximately 15 minutes. It is targeted for the younger student who has mastered basic counting skills but does not know the number combinations. The program consists of two 48-page workbooks, 400 combination cards for operations, two charts for recording student performance, instructor's manual, and placement test.

$20.45 set

MATH MADE EASY
E. R. Storms
Frank E. Richards Pub. Co., Inc.

This book is designed as a workbook for the educable mentally retarded. High interest, limited reading and associative presentation assist in comprehension. Each page builds in sequences and reinforces the skills and the fact retention of the previous page. It presents a systematic approach for teaching addition and subtraction.

$2.75

MATH PROFICIENCY (Duplicating Series)

Chaselle, Inc.

This set of six duplicating master skillbooks presents the essential rules, sample problems and practice drill for basic mathematics operations; and then provides practical applications of mathematics in daily life. Series consists of the six books on: Whole Numbers, Fractions, Decimals, Percent and Proportion, Geometry, and Measurement, each containing 24 duplicating masters, and pre- and post-tests and teachers guide.

$53.50 set $8.95 each

MATH THE EASY WAY

Chaselle, Inc.

This worktext covers the basic operations of whole numbers, fractions, decimal fractions, percent, beginning algebra, factoring, geometry, tables, graphs, and word problems. It has an interest level of grades 7 through 12 with a 4.5-6.5 reading level.

$4.95

MATHAMERICA
A. Clack and C. Leitch
Midwest Publications

A three volume series of supplementary materials, these books give challenging practice exercises in puzzle format. Volume 1 includes whole numbers: reading and writing whole numbers, addition, subtraction, multiplication, division, mixed operations, and holiday puzzles. Volume 2 includes fractions and mixed number operations, as well as decimals. Volume 3 includes integers, rational numbers, monomial operations, solving linear equations, and holiday puzzles.

$4.95 each

MATHEMATICS FOR CAREERS SERIES
Curriculum Committee of St. Paul TVI
Delmar Publishing Inc.

This series of 8 text-workbooks is designed for the mature student who lacks competency in the basic mathematical skills. Each workbook emphasizes basic concepts and applies these in practice exercises to vocational fields and everyday life. The books range in length from 94 pages to 177 pages.

$3.80/2.85 I.G. $2.75

Adding and Subtracting Whole Numbers
Multiplying and Dividing Whole Numbers
Decimals
Fractions
Mixed Numbers
Percents
Measurement and Geometry
Consumer Applications

MATHEMATICS SIMPLIFIED AND SELF-TAUGHT
B. Erdsneker
Arco Publishing Inc.

The instructional section of the book covers 20 different topics essential to an understanding of mathematics, from fractions and decimals to statistics and probability. Interest and taxation, payroll problems, profit and loss, sequences, algebra and geometry are also included. The review section consists of three sample exams with carefully worked through solutions for all problems. These sample exams represent the kind of mathematical knowledge tested on Civil Service, high school equivalency and SAT exams respectively. 192 p.

$6.95

MATHEMATICS SKILL BUILDER
Gossage (1977)
Southwestern Publishing Co.

This functional text-workbook provides a thorough review of the fundamentals of mathematics in approximately 30 class hours. Emphasis is placed on the addition, subtraction, multiplication, and division of whole numbers and fractions. Each of the 80 practical lessons is followed by a one-page test. A final test completes the program. An instructor's guide is available.

$4.76

MATHEMATICS SKILLS FILMS AND TESTS
G. B. Teschner, and others
Continental Press, Inc.

This program is self-instructional for use in the middle school, senior high and adult education. The set contains twenty-four 35mm filmstrips for strengthening mathematics skills. After an introductory explanation by the teacher, students can work independently and proceed at their own rate of learning. The essentials of basic mathematics are broken down into small, easily assimilated segments. Practice is provided for the development of computational skills. Programmed instruction techniques permit the student to make a response and have immediate reinforcement. Pre-tests and post-tests accompany each film.

$160.00 complete boxed set

MATHEMATICS SPIRIT MASTER CASSETTE KIT

Media Materials, Inc.

This kit is geared toward intermediate students and helps them receive practice with multiplication and division of large numbers, and operations with fractions, decimals, and percent. Each idea is clearly explained with many examples. Each kit comes complete with 3 self-directing cassette tapes, 36 high-quality spirit masters, comprehensive kit guide, listing of lesson objectives, library catalog cards, all in a sturdy storage box.

$39.95 kit

MEETING BASIC COMPETENCIES IN MATHEMATICS
E. L. Corcoran
Frank E. Richards Publishing Co., Inc.

This workbook helps to assess and give practice in the basic skills in mathematics needed by most adults in coping with everyday situations. Although students may not have accurate computational skills, they must know the functions and mathematics signs commonly used. This book contains questions and/or problems used in most school and state competency tests.

$2.75 J.G. $ N/C

MICHIGAN ARITHMETIC PROGRAM
K. Wehrli
Ann Arbor Publishers

This program trains mastery of basic mathematics skills for speed and accuracy in computation. Programmed instruction via tapes or Teacher's Script meets each student's needs. The instruction is based upon a "Listen and Do" to train visual accuracy, fluency in arithmetic language and competence in problem-solving. 45-minute sessions present each concept in four different formats. Each page contains immediate feedback on accuracy and time. Pre- and post-tests are included. Separate components are available on Numbers and Numerals, Addition, Multiplication, Subtraction, and Division, with a book and cassettes for each section. Write for price list. For use in initial, supplemental, special or adult teaching.

$ N/L

MICHIGAN PRESCRIPTIVE PROGRAM IN MATH
W. E. Lockhart
Ann Arbor Publishers

The program pinpoints student ability or deficiency in mathematics skills--elementary to adult. It is inexpensive and efficient. It was designed to help students obtain a 10th grade equivalency and pass the GED test in mathematics. Additionally, any teacher can efficiently identify student skill deficiencies. Math Study Materials have allowed students 1.5 to 3.5 math grade gain in 24 clock hours of study. Mathematics skills tested and remediated include the basic operations, graphs, area, set theory, signs, exponents, simple equations, and more.

$13.50 set

NUMBER POWER
J. Howett, and others
Contemporary Books, Inc.

This series of mathematics worktexts is geared toward adult learners and others who need to build up their comprehension. These books guide learners through a carefully constructed program of skill development and practical applications in a self-instructional format. Each worktext consists of two major components. The first concentrates on developing specific background and computational skills. The skills inventory that begins each major section allows a pre-test. Step-by-step instructions and examples of problems, then drill problems follow. The second component applies the lessons learned in the first part of the book to a series of specialized lessons or objectives based on real-life situations.

$2.89 each

- Book 1: Addition, Subtraction, Multiplication, Division
- Book 2: Fractions, Decimals, and Percent
- Book 3: Algebra
- Book 4: Geometry
- Book 5: Graphs, Tables, Schedules and Maps
- Book 6: Word Problems

OREGON MATH: COMPUTATION
L. C. Weigel and G. A. Weigel
C. C. Publications, Inc.

This mathematics program teaches skills from number recognition through long division. It is highly structured and employs a teaching method that gives students simple rules to remember for addition, subtraction, multiplication, and division, and a procedure for incorporating the rules and finger manipulation to compute answers. This method provides a high rate of success for students. Evaluations are also contained intermittently throughout the program. The target groups are EMR, TMR, and learning disabled students of any age. (Write for full program price list.)

$77.95 set

- Oregon Math Computation + - (and 10 books)
- Oregon Math Computation x ÷ (and 10 books)

PROGRAMMED ARITHMETIC LAB
H. Porter
Mafex Associates

This lab tests and teaches addition, subtraction, multiplication, and division competencies. It is designed for individual student diagnosis by identifying strengths and weaknesses, the prescriptive teaching goal. Components include the student record book and general survey test, exercise cards, additional practice cards, pre-test and final test pads, and the teacher's guide.

$59.95 complete

PROGRAMMED MATH, 2nd Edition
Sullivan Associates
McGraw-Hill

This series of programmed computational and word problem books enables pupils who have difficulty understanding basic computational operations to move at their own pace as they master key concepts. The programmed format provides continuous opportunities to reinforce learning. Books 1-4 do not use written instructions, and there is a minimum number of words in books 5-8. In addition, many pictorial explanations are provided to help students understand concepts more easily. Reading level is geared toward grades 2-3, and interest level is 10-16 years. Word problem books are also available for each.

$3.45 each
- Book 1, Basic Addition
- Book 2, Advanced Addition
- Book 3, Subtraction
- Book 4, Multiplication
- Book 5, Division
- Book 6, Fractions
- Book 7, Decimals
- Book 8, Measurements

REACHING MATH COMPETENCE
Chant and Montalto
Globe Book Company

This companion volume to IMPROVING MATH COMPETENCE is a text-workbook for remedial instruction, and teaches skills in the context of real-life situations. It offers a more in-depth treatment of basic mathematics operations; more applications of mathematics in daily life; exercises to sharpen students' skill in making computations and solving problems; and the introduction of new topics such as averages, whole numbers and mixed numbers, ratio and proportion, and changing fractions to decimals.

$7.63

REVIEW ARITHMETIC
M. W. Keller and J. H. Zant (1970)
Houghton Mifflin

This book is the arithmetic section of Basic Mathematics Second Series, Form A. It provides a review of fundamentals for development courses. The contents include operations with whole numbers, operations with decimals, denominate numbers, fractions, mixed numbers, percentage, square root and cube root. A diagnostic test and five achievement tests are included. 80 p.

$12.95

STEPS TO MATHEMATICS, 2nd Edition
Steck-Vaughn Editoral Staff
Steck-Vaughn Company

This two-book series is for the adult student at the beginning level and presents the basic concepts of the number system. The books provide ample practice in performing addition, subtraction, multiplication, and division using only whole numbers. Answer Keys are available with class quantity orders. Book 1 is for level 1-2; Book 2 is for level 3-4.

$2.25 each

STRICTLY MATH
J. Levin and A. Schectman
Mafex Associates

Classroom developed and tested, this mathematics program is designed to motivate underachievers to master computational mathematics. Ten books cover intermediate-level mathematics from addition through fractions and decimals. The Grade 4 level material is presented in a mature format to stimulate and hold student interest. Very little reading is included. Each book is set up so that one clearly defined mathematics skill is mastered each day, and requires active student involvement. A test is included in each book as unit summaries to provide for systematic evaluation. The books include Place Value--Addition; Subtraction; Multiplication; Division; Measurement--Geometry; Graphs; Number Theory--Fractions; Decimals; Special Topics.

$2.95 each I.G. $7.95 for entire program

TECH MATH
Prime Learning
Prime Distribution, Inc.

Consisting of 131 separate programs, this audio-visual resource is designed to teach lower level mathematics skills to upper level high school and adult students. Each program is on a Labelle cassette cartridge and is grouped into such broader categories as Place Value, Number Properties, Problem Solving, Fractions, Decimals, etc. A state representative is available. Write for a complete description.

$100.00 Cartridge

MATHEMATICS FOR VOCATIONAL-TECHNICAL INSTRUCTION

APPLIED GENERAL MATHEMATICS

R. D. Smith (1982)
Delmar Publishers, Inc.

This is an illustrated, comprehensive text for developing a practical understanding of the fundamental mathematical operations. Mathematics principles are presented in an easy-to-understand format and applied to various occupations, including typist, machinist, carpenter, cosmetologist, nurse assistant, and retailer. Basic concepts are accompanied by exercises with answers and drill exercises included. There is a test booklet with problems for additional student practice and an Instructor's Guide. Topics covered include whole numbers, common fractions, decimal fractions, percentage, statistical measures, and graphs. 349 p.

$19.80/14.85 I.G. $5.25 Tests $5.00

APPLIED MATH FOR TECHNICIANS

C. S. Moore and others (1982)
Prentice-Hall

This resource is designed to meet the mathematical needs of machinists, auto mechanics, printers, construction workers, and other technicians and trades people. It covers arithmetic through trigonometry (with emphasis on practical applications) and considers special topics in arithmetic and special business and management applications. Worked examples, illustrations, and exercises assist comprehension. An instructor's manual is available.

$18.95

BASIC INDUSTRIAL MATHEMATICS, Metric Edition
R. M. Johnson and P. Tibbits
Gregg/McGraw-Hill

This comprehensive workbook-text is geared toward helping students become proficient technicians in the structural, mechanical, and maintenance trades. It introduces students to the metric system and enables them to move with ease between this system and the English system. Industrial mathematics is presented by leading students from basic calculations through simple algebra, geometry, and trigonometry in a step-by-step way. Sample problems illustrate each principle, and an overwhelming number of drill-type and applied problems reinforce learning. 325 p.

$17.95/14.36 Answer Guide $6.00/4.80

BASIC MATHEMATICS FOR TECHNICAL OCCUPATIONS
R. L. Bohuslov
Prentice-Hall

This resource offers a complete study of the basic mathematics required to understand and solve problems in the technical and trade vocations. Reviews arithmetic processes, and explores concepts from whole numbers through algebra and trigonometry. Over 6,000 practical problems from the major technical areas that improve problem analysis, problem solving, and in some cases, reading skills are included. There are also over 400 worked examples and sample exams for each chapter. An instructor's manual is available. 512 p.

$21.95

BASIC MATHEMATICS FOR TRADES AND TECHNOLOGIES
C. Cleaves, and others (1983)
Prentice-Hall

This book is designed to be a "no frills" approach to basic mathematics skills (arithmetic, algebra, geometry, and trigonometry) with numerous trade and technical applications from business and industry integrated throughout. It assumes a very limited familiarity with arithmetic. Chapters are divided into manageable sections and the narrative portions are brief. Skills are presented with easy-to-understand examples with detailed solutions, and numerous practice exercises (self-study exercises, assignment exercises, and trial tests coded to chapter sections). The examples and exercises are drawn from on-the-job contexts and stress the practical applications of mathematic concepts and skills. Metric system applications are also included. An instructor's manual with tests is available. 640 p.

$21.95

ELEMENTARY MATHEMATICS FOR THE TECHNICIAN
E. M. Hemmerling
Gregg/McGraw-Hill

This basic text covers the essentials of arithmetic, the slide rule, elementary and advanced algebra, basic concepts of plane geometry, mensuration of plane and solid geometric figures, logarithms, and a brief introduction to trigonometry. Emphasizing understanding rather than memorization, this text illustrates mathematical principles and operations in application to selected job-oriented problems. 512 p.

$23.50/18.80 Answer Guide $2.40

INTRODUCTORY TECHNICAL MATHEMATICS
J. Christopher (1982)
Prentice-Hall

This text covers the basics of arithmetic, algebra, geometry and trigonometry (and their use in solving technical problems) in an easy-going, intuitive, and unintimidating style that requires little previous mathematical preparation. It offers unusually broad and in-depth coverage including a review of elementary topics, full chapters on dimensional analysis, basic geometry with applications, conversions between the English and metric systems. Worked-out problems, review questions, and review exercises are also contained. 431 p.

$21.95

MATH
CIMC/Oklahoma
CIMC/Oklahoma

MATH is one of the Coordinated Vocational Education and Training manuals which were developed specifically for special needs programs with disadvantaged and handicapped students. Seven areas of instruction (measurement, whole numbers, fractions, decimals, percent, consumer education, and geometry) were developed with assignment sheets specifically to acquaint students with basic and practical mathematical problems and terms directly related to the vocational skills trade areas.

$14.00 I.G. $17.00

MATH FOR THE WORLD OF WORK
C. Crowell
Educational Design Inc.

Designed for low reading levels, this book teaches the mathematics skills most widely used in the job world at the entry level. Included are chapters on fractions, handling money, making measurements, simple operations with weights and measures, the calculator, reading scales, meters and dials, and reading tables. Real job-world situations and examples are used throughout. 112 p.

$3.95/2.95

MATHEMATICS AT WORK
B. B. Singer
Gregg/McGraw-Hill

This three-volume modular approach to applied mathematics is designed for both secondary and post-secondary application. It is highly flexible and skill-oriented, combining practical, applied mathematics instruction with career information and on-the-job situations. Each volume stresses the function of mathematics as a problem-solving tool that will be used by students in real-life situations. The Instructor's Manual for the entire course contains post-tests and a matrix correlating mathematical concepts with selective, high-density occupations.

$15.95/12.76 Fractions (100 p.)
$18.95/15.16 Decimals (233 p.)
$18.95/15.16 Algebra (234 p.)

MATHEMATICS FOR INDUSTRY, 3rd Edition
S. E. Russinoff
American Technical Publishers, Inc.

This resource applies basic arithmetic, beginning with common and decimal fractions, algebra, geometry and trigonometry to everyday industrial job requirements. It also includes mathematics in practical engineering and shop practices, in machine shop and metal trades. The text consists of 16 chapters, each offering practice problems directed toward the shop and tool room. Contents include gears, slide rule, engineering computations, problems in inspection and quality control, and screw threads, besides the basics. 581 p.

$14.25/10.69

MATHEMATICS FOR TECHNICAL EDUCATION, 2nd Edition
D. Ewen and M. A. Topper
Prentice-Hall

This volume is designed to provide readers with the mathematical skills necessary for technical programs and for future, more advanced work in mathematics. It presents topics in an intuitive manner with technical applications integrated throughout whenever possible, and offers a low reading level, minimal rigor, and detailed examples worked out in a step-by-step consistent format with appropriate comments at various steps. The text covers ratio and right triangle trigonometry early. Included is an extensive review of basic algebra. Many exercises and illustrations are incorporated. 484 p.

$23.95

MATHEMATICS FOR THE TECHNOLOGIES
L. M. Clar and J. A. Hart
Prentice-Hall

This text offers comprehensive coverage designed specifically for students in various technologies and related fields. The series provides great flexibility; mathematics coverage is available with or without calculus sections. Also, the calculus material is available with or without basic mathematics sections. It is appropriate for courses in technical mathematics or technical calculus in engineering technology programs.

$23.95

MATHEMATICS OF THE SHOP, 4th Edition
F. J. McMackin and others
Delmar Publishers, Inc.

This text covers a variety of mathematical procedures and concepts used in shop courses: measurement, fundamentals of algebra, computation, accuracy and use of the slide rule; pulleys, belts and gears; basic geometrical applications; screws, nuts and bolts, power, energy and stresses; mathematics of the building trades, electrical shop, and machine shop; basic trigonometric applications; and the steel square. 628 p.

$21.00/15.75 I.G. $4.10

SHOP MATH

Career Aids, Inc.

This series teaches students the mathematical skills needed in 4 shop occupations. Each program includes 3 color filmstrips, 3 cassettes, and a teacher's guide and library cards. They may be ordered individually or as a set. Basic Skills includes whole numbers and decimals, common fractions, surface measurement. Building Trades includes linear measurement, whole numbers and common fractions, area and volume. Metal Shop includes whole numbers and metric applications, fractions and decimals, geometry and trigonometry. Electrical Shop includes basic electrical concepts, series and parallel circuits, power and alternating currents.

$90.00 each title
$325.00 full set

SHOP MATHEMATICS
D. C. Ebersole (1980)
Prentice-Hall

This semi-programmed, introductory volume covers arithmetic, elementary algebra, geometry, and trigonometry in a step-by-step fashion with a practical emphasis. Material can be used effectively for self-study, as a reference, or as a classroom text. It is appropriate for a one-semester/quarter course. A teacher's manual is available. 352 p.

$17.95

TECHNICAL MATHEMATICS
P. Calter
Prentice-Hall

This pre-calculus mathematics text addresses problem areas of introductory-level readers. It offers an intuitive, rather than a rigorous approach and presents information in small easy-to-read-and-digest segments; reviews numerical computation and geometry in optional first chapters; integrates calculator/computer techniques throughout; has abundant illustrations and practice problems; and has many problems which are technically oriented. A teacher's manual is available. 688 p.

$24.95

TECHNICAL MATHEMATICS, 3rd Edition
H. S. Rice and R. M. Knight
Gregg/McGraw-Hill

This introductory mathematics text is designed for beginning engineering technology students. Emphasizing problem solving, it teaches them to grasp fundamentals rather than simply memorizing formulas. Topics include algebra, geometry, and trigonometry. A large number of down-to-earth problems reflecting practical situations are included. Chapters have been added to include space technology, earth sciences, and "warmups" in basic mathematics for review purposes. This course will sufficiently prepare a student for calculus. PREREQUISITE: Elementary algebra and geometry are recommended. 626 p.

$21.50/17.20 I.G. $3.00 Answer Key $3.00

TECHNICAL-VOCATIONAL MATHEMATICS
L. Mrachek and C. B. Komschlies (1978)
Prentice-Hall

This book provides an informal coverage of basic mathematics including arithmetic, basic algebra, applied geometry, trigonometry, and metrication. Its intuitive approach provides a good working knowledge of mathematics that can apply in the occupational trades. Emphasis is on problems that build skills in computational techniques and problem solving. It is flexible enough for various applications: self-study, review, partial study (focus on specific self-contained chapters) and as an assigned textbook. Chapter objectives, self-tests, exercises, and summaries are also contained. A solutions manual is available.

$17.95

VOCATIONAL RELATED MATH
Instructional Materials Laboratory (1983)
Instructional Materials Laboratory, Columbia, MO

This guide is directed toward special needs students and covers: measurement, whole numbers, fractions, decimals, percent, consumer education, and geometry.

$12.20 I.G. $16.80

VOCATIONAL-TECHNICAL MATHEMATICS
R. D. Smith (1983)
Delmar Publishers, Inc.

This comprehensive text provides students with a thorough understanding of algebra, geometry, trigonometry, and precision measurement. These concepts are then applied to realistic practice problems which are geared to students' occupational interests, including over 30 diverse occupations. Examples, questions, practice problems and illustrations are amply included throughout to aid student understanding. The Solutions Manual contains complete solutions to the more complex problems in the text, answers to all problems, and a set of reviews for each section.

$19.80/14.85 Solutions Manual $7.25

ARITHMETIC REVIEW FOR ELECTRONICS
N. M. Cooke and H. F. R. Adams
Gregg/McGraw-Hill

This text would be helpful to technicians and students who need a basic arithmetic review before applying themselves to systematic advanced study. Included in the text are basic arithmetic concepts, as well as powers of 10, the slide rule, units and dimensions. Review problems are incorporated. 192 p.

$17.95/14.36

BASIC MATHEMATICS FOR ELECTRICITY AND ELECTRONICS, 4th Edition
B. B. Singer
Gregg/McGraw-Hill

This edition was based on an in-depth survey of teacher's needs and recommendations and offers electrical students a practical two-semester course in applied mathematics. Basic mathematics is integrated with electrical principles and then applied to the solution of typical electrical installation and equipment servicing problems. Each short chapter focuses on a new mathematics operation or electrical concept and presents numerous word problems that stress everyday applications and give students practice in setting up equations. Programmed self-tests, reviews and summaries are also included along the way. No prerequisites to this course are required. 656 p.

$21.95/17.56 I.G. $3.20

BASIC MATHEMATICS FOR ELECTRONICS, 5th Edition
N. M. Cooke and others (1982)
Gregg/McGraw-Hill

A text designed for the one- or two-year Mathematics for Electronics course or Basic Electronics course, or for independent study. The book combines electronic theory and applications with the mathematical principles necessary to solve a wide range of circuit problems. It reflects the state of the art in electronics, including solid-state devices and digital techniques, and emphasizes the electronic calculator for problem solving. Requiring only a working knowledge of arithmetic, the text explains the mathematical principles behind problem solving to promote understanding. With each new topic introduced, illustrative examples and numerous problems, graded from easy to difficult, are given for reinforcement. 688 p.

$23.95/19.16 Answer Guide $2.36

BUSINESS MATHEMATICS SIMPLIFIED AND SELF-TAUGHT
F. Chernow
Arco Publishing, Inc.

Ideal for students, teachers and all career-motivated persons, this book covers the mathematics skills necessary for doing well in business. In easy-to-follow language, the author includes diagnostic and review tests in all areas, step-by-step instructions for problem-solving, numerous practice problems applied to real-life situations, and many special features such as shortcuts in calculation and methods for unlocking verbal problems. 144 p.

$4.95

CONSUMER AND BUSINESS MATHEMATICS

R. J. Meyer
Arco Publishing, Inc.

This text has been specifically designed to meet the needs of the slower learning high school student who finds difficulty coping with standard texts on consumer and business mathematics. The instruction is presented step-by-step. The material is written at a high interest level, using practical business-type situations. Graded problems have been included throughout to provide a systematic review of arithmetic fundamentals. Also included are more challenging and difficult problems for students who have made rapid progress. Chapters include areas on fundamental operations, invoicing skills, income tax, depreciation, profit and loss, using the metric system, among others. 192 p.

$6.00

DELMAR PUBLISHERS MATHEMATICS TEXTS SERIES

Delmar Publishers

These texts introduce the student to the mathematical techniques needed in the specific trade skill. A thorough understanding of the concepts and principles required for learning the trade are emphasized. Industry related examples and actual industrial applications are integrated throughout the texts.

$13.80/10.35	I.G.	$5.25	Mathematics for Auto Mechanics
$19.80/14.85	I.G.	$4.70	Mathematics for Business
$13.80/10.35	I.G.	$4.10	Mathematics for Carpenters
$22.00/16.50	I.G.	$7.25	Mathematics for Electricity and Electronics
$13.80/10.35	I.G.	$7.25	Mathematics for Machine Technology
$9.80/7.35	I.G.	$4.10	Mathematics for Plumbers
$14.00/10.50	I.G.	$4.10	Mathematics for Sheet Metal Fabrication

DEVELOPING BASIC MATH SKILLS FOR MARKETING
Extension Instruction and Materials Center
EIMC, Austin, Texas

This publication explores basic mathematics and its importance to marketing. It contains many examples and practice problems to aid comprehension. Although designed for laboratory programs, it is also useful as supplementary material for all levels.

$6.50 Answer Book $5.00

E-MATH
Prime Learning
Prime Distribution, Inc.

Geared toward an electricity/electronics program, this resource is composed of two parts. Each part is based upon a core set of 52 mathematics skills which were identified as essential to successful completion of an electricity/electronics program. The first part is a computer diagnostic mathematics test designed to identify areas of mathematics skills deficiencies. The second part is a series of 35 prescriptive lessons on Labelle cartridges designed to deal with these deficiencies. Write for complete description.

$500.00 Diagnostic Package
$100.00 Prescriptive Package (each cartridge)

FUNDAMENTAL MATHEMATICS FOR HEALTH CAREERS
J. D. Hayden and H. T. Davis
Delmar Publishers, Inc.

This comprehensive text reviews the basic principles of mathematics and applies them to practical problems often encountered in the health care field. Over 2,000 exercises and application problems are included. Topics covered include: fractions, metric measurement, organizing and reporting data, and health occupation information. 280 p.

$9.60/7.20 I.G. $3.60

MAKING BASIC MATH SKILLS WORK FOR YOU IN MARKETING
Extension Instruction and Materials Center
EIMC, Austin, Texas

This manual is for students who have mastered the basic skills. It leads students from examples through practice problems of mathematics applied in marketing situations. Designed for laboratory programs, it may also be useful as supplementary material for all levels.

$8.50 Answer Book $5.00

MATH PRINCIPLES FOR FOOD SERVICE OCCUPATIONS
R. G. Haines
Delmar Publishers, Inc.

This text reviews basic mathematics operations, then applies these to the operational procedures of the preparation crew, service crew and management. Taxes, checking accounts, and metrics are also included. 197 p.

$12.00/9.00 I.G. $5.25

MERCHANDISING MATHEMATICS, 3rd Edition
P. Carlo and D. Murphy
Delmar Publishers, Inc.

This text covers the fundamental mathematics skills required by retailing and merchandising employees. A practical and functional approach is followed, teaching mathematical principles and applications through the solution of actual merchandising problems. Metric conversion tables and practice problems have been included. Financial information, statistics and forms have been updated, and a glossary is included. 179 p.

$10.80/8.10 I.G. $3.60

PRACTICAL MATH FOR BUSINESS, 3rd Edition
A. R. Curtis (1983)
Houghton Mifflin

This text/workbook surveys the fundamentals of mathematics. Actual business applications are used to demonstrate how business mathematics applies to accounting, finance, management, retailing, and other business situations. Each chapter has an outline, key points, an opening mini-case about a real-life situation that illustrates the chapter's major concept, and numerous problems after each section. Chapters include, among others: interest, balance and income statements, payroll, retailing mathematics, depreciation methods, and stocks and bonds. The Instructor's Edition is available in a 3-ring binder for easy removal of pages to make transparencies and exam masters. It is geared toward post-secondary students. 365 p.

$18.95 I.G. $19.95

PRACTICAL PROBLEMS IN MATHEMATICS SERIES

Delmar Publishers, Inc.

Each workbook provides a step-by-step approach to applying the principles of mathematics to occupationally-related problems. They are designed for the vocational and general education student, grades 9 - 14, and may be used to supplement any core mathematics text. At the end of each workbook, two achievement reviews provide an excellent means of measuring student progress. Some of the titles (*) include diagnostic reading surveys relevant to the particular vocational field.

$7.80/5.85	I.G. $2.75	Graphic Arts
$7.00/5.25	I.G. $3.25	Cosmetology
$7.80/5.85	I.G. $4.10	*Electronics Technicians
$7.80/5.85	I.G. $4.10	*Welders
$7.80/5.85	I.G. $4.10	*Heating & Cooling Technicians
$7.80/5.85	I.G. $3.60	*Masons
$7.00/5.25	I.G. $4.10	*Electricians
$7.80/5.85	I.G. $4.70	*Machinists
$7.00/5.25	I.G. $2.75	Metric System
$7.00/5.25	I.G. $4.70	*Auto Technicians
$7.80/5.85	I.G. $4.10	*Carpenters
$7.80/5.85	I.G. $3.60	*Mechanical Drafting
$7.00/5.25		Office Workers
$7.00/5.25	I.G. $2.75	Consumers
$7.00/5.25	I.G. $3.00	Sheet Metal Technicians

PRACTICAL PROBLEMS IN MATHEMATICS FOR WELDERS
F. F. Schell and B. J. Matlock (1982)
Delmar Publishers, Inc.

This second edition provides practical and realistic mathematical problems often encountered by the welder. Relevant, easy-to-understand problems cover all aspects of the welding trade. The text-workbook contains abundant illustrations, information on metric measurement, a new diagnostic reading survey, and new glossary. 218 p., softcover.

RELATED MATHEMATICS FOR CARPENTERS, 2nd Edition
P. L. Reband
American Technical Publishers

This text reviews basic mathematics and applies it to practical carpentry. It includes measuring accuracy, metrics, missing dimensions, complex areas, footings and foundations. Page references refer to further study in the textbook Practical Mathematics by Hobbs and McKinney. Everyday building trades problems are incorporated with many illustrations to assist comprehension. 66 self-check tests and 10 exams are included. The Instructor's Answer Key gives the problem answers. 218 p.

$7.50/5.63 I.G. $ N/C

VOCATIONAL MATHEMATICS FOR BUSINESS, 3rd Edition
Martinka and Southam (1984)
Southwestern Publishing Co.

This text-workbook reviews the essentials of decimals, fractions, equivalents, percents, and weights and measures and then applies these basics to practical problems. Checking accounts, interest computation, cash and trade discounts, sales, payroll, etc. are covered. Self-check answers are provided to make this book ideal for individualized as well as group instruction. Students in all types of vocational programs may benefit from the mathematical operations presented. An instructor's guide is available, as well as a separate test booklet.

$6.14

CONSUMER MATH
Fairbank and Schultheis (1983)
Southwestern Publishing Co.

This one-semester textbook is designed to develop the competencies needed to solve consumer mathematics problems. The book is organized into 5 parts that will appeal to high school students: Earning Money, Spending Money, Saving and Investing Money, Borrowing Money, and Understanding Business Operations. In addition, topics such as fringe benefits, figuring equivalent pay, metrics, cost and energy saving, credit cards, etc., are incorporated in the problems. Specially-marked optional topics and problems are included to challenge more able students. A teacher's guide, test package and student check sheet are available.

$9.90 text $3.76 workbook

CONSUMER MATHEMATICS, 3rd Edition
W. E. Goe (1979)
Harcourt Brace Jovanovich

This text presents arithmetic skills with consumer information to assist students in making wise decisions in their everyday life. A non-wordy style gives the latest information on automobiles, insurance, food, clothing, budgeting, housing, utilities, banking and investing. Each lesson provides practice in mathematical skills necessary to handle a specific task, with extra practice in the back of the book. While numbers through percents and the metric system are included and each chapter is designed as independent units of study to allow flexibility of program design. A softcover activities book is also available.

$9.90 I.G. $3.15

LEARNING MATH SKILLS
M. J. Carrell
Frank E. Richards Pub. Co., Inc.

This material is designed to help the special student of any age who has not yet mastered the four basic operations of mathematics. It bridges the gap between beginning arithmetic concepts and the practical mathematics problems used in everyday living. The work progresses from the simple to the more difficult, interspersed with practice in all four operations as well as money problems.

$2.75

LIFE SKILLS MATH 1
D. Mosenfelder
Educational Design Inc.

This resource teaches to 8th grade competency objectives and is designed to hold the attention of mathematics underachievers. It focuses on real-life mathematics, such as money, life skills fractions, decimals, and percents, standard measures, all in real-world problem situations. The units of instruction are short with carefully controlled levels of instruction, sequence, and reading requirements. Ample reviews are included as well as a whole section of Life Skills Math situations involving combinations of problems and skills. Suitable for a full range of students, including adult education. 112 p.

$3.95/2.95

LIFE SKILLS MATH 2
D. Mosenfelder
Educational Design Inc.

This text is designed as a supplement for LIFE SKILLS MATH 1 for students who need additional practice to achieve mastery. The lessons follow the MATH 1 sequence providing approximately 20 additional problems per lesson in carefully sequenced and controlled levels of difficulty. 112 p.

$3.95/2.95

LIFE SKILLS MATHEMATICS
A. Treff and D. Jacobs
Media Materials, Inc.

This text applies basic computational skills to situations encountered in the everyday world of teenagers and young adults. Step-by-step instructions, lots of practice exercises, calculator and computer activities, and chapter tests all strive to insure student understanding.

$12.95 text
$9.95 manual/resource book
$3.95 student workbook

MATH FOR EVERYDAY LIVING

Career Aids, Inc.

This text is for the slower secondary and adult students who need special assistance in mathematics. The coordinated story line is designed to engage and hold the student's interest. The text focuses on using mathematics skills in practical life: shopping, having a job, things at home, buying on credit, budgeting, buying wisely, banking, travel, taxes and insurance.

$13.50 I.G. $10.95

MATHEMATICS

Instructional Materials Laboratory

This workbook is part of a larger series on marketing and distributive education. This component reviews the basic mathematics skills needed by an entry level employee. 89 p.

$2.20 I.G. $4.40

MATHEMATICS FOR CONSUMERS
K. Harmeyer
Media Materials, Inc.

This text is geared toward students who are on the brink of facing the "real world" of decisions and financial responsibilities, but need an easy-reading approach to gaining the needed mathematics skills. Topics include earning money, managing a household, food and clothing, budgeting, banking, taxes and others.

$12.95 text
$9.95 manual/resource book
$3.95 workbook

MATHEMATICS IN DAILY LIVING
N. B. Bryant and L. Hedgepeth
Steck-Vaughn Company

The primary focus of this series is to develop the skills in using fractions, decimals, percents, geometry, and fundamental algebra needed to cope with everyday living. Adult Performance Level topics blend with the mathematical instruction to provide helpful and interesting application of mathematics in occupational knowledge, consumer economics, and more. Mathematical topics are dealt with one at a time, and include abundant exercise material. Answer keys are bound in for convenience and the reading level is geared toward levels 5 - 8. This cost efficient series provides instruction in fractions (Book 1), decimals and percents (Book 2), measurement and geometry (Book 3), and fundamental algebra (Book 4). A wide variety of photographs enhances the textual material.

$2.61 each

OREGON MATH: MONEY
J. Proff-Witt
C. C. Publications, Inc.

This resource is designed to teach the skills of counting coins and bills and making change. The program teaches oral and written money skills and utilizes replicas of American coins and bills. The program uses a system that requires the student only to count by 1's, 2's, 5's, 10's, 25's and 50's to 100, and count from one number to another number. Lesson worksheets to follow up each of the daily lessons are used. The target groups include EMR, TMR, and learning disabled students of all ages.

$77.95 Oregon Math Money Manual
$23.95 Workbook

PRACTICAL MATH Book 1 and Book 2
H. L. Watkins
Steck-Vaughn Company

This two-book series is geared to teach adults basic mathematics and its practical applications in daily living. Book 1 includes an introduction to/and review of whole numbers. It teaches decimals and money management together to aid understanding of decimal operations. Fractions are presented in a sequence which makes mastery of these concepts attainable. Percent is structured so that new ideas are based on the student's knowledge. Book 2 begins with charts and graphs, goes into measurement skills, through extensive work with formulas, many exercises in algebra and sufficient material in geometry and rectangular coordinates. Pre- and post-tests allow students to gauge their mastery of these skills. It is suitable for GED preparation because of the contents.

$2.85 Book 1
$2.85 Book 2

PRACTICAL MATHEMATICS, 3rd Edition
G. M. Hobbs and J. McKinney
American Technical Publishers, Inc.

Mathematics for everyday use is the focus of this text. It begins with basics and provides practical examples and problems from industry. Included are construction, machine, printing and drafting trades. The 15 chapters are broken into smaller lessons. Each lesson is reinforced by practice problems, which are oriented to calculations found in everyday experiences. At the conclusion of each chapter a final examination is given. Answers to the exams are given in the back of the text. 591 p.

$14.25/10.69

REAL-LIFE MATH
S. E. Schwartz
Career Aids, Inc.

This multi-media kit allows learning disabled and slower students to participate in business transactions and personal money management through role playing activities. This program is geared for mildly handicapped high school classes and normal junior high classes. Students learn how to: choose an appropriate job, complete a bill, open a checking and savings account, make a bank deposit, pay bills by check, record checks and deposits, obtain savings passbook and interest, balance checking account, and organize individual records. The program consists of 10 cassettes, 5 student skill books, mail box, 3 desk signs, supply kit, posters, spirit masters, and teacher's guide.

$179.00 set

SURVIVAL MATH

Opportunities for Learning, Inc.

This set of colorfully illustrated activity cards depicts realistic situations requiring basic number knowledge. Students follow simple instructions and proceed at their own pace, selecting cards from the eleven units, representing general areas of mathematics in daily human activity, such as Money Management, Math in Sports and Games, Smart Shopping, Scheduling and Planning Activities, Measurements, Metrics and Statistics and more. Kit contains 50 durable Activity Cards, Teacher's Guide, Student and Teacher Record Sheets.

$85.00 set

TARGET MATH: LEARNING MATH FOR LIFE
L. Parsky
Mafex Associates

This series of 9 mathematics workbooks and transparencies teaches the basic skills needed to perform such consumer tasks as calculating the most economical product size, balancing a checkbook, budgeting the family income, figuring interest, and more. Concepts are introduced in small segments and skills are sequentially developed. Reinforcement occurs throughout. Pre- and post-tests are included and each unit contains mastery tests. Some of the titles are: Math for Everyday Living, Math for the Supermarket, Math for the Department Store, Math for Citizenship, and Math for Employment. Each class set comes with 20 workbooks, transparencies and guide.

$110.95 - $129.95 (per set)
$4.95 - $5.95 Workbook
$6.95 - $7.95 I.G.

USEFUL ARITHMETIC VOL. 1 and VOL. 2
R. J. Bohn and J. D. Wool
Frank E. Richards Publishing Co., Inc.

These two books include practice material in many practical mathematics situations. Vol. 1 includes: a grocery bill, buying household goods, comparing prices, savings bonds, work week and pay, union dues, cost of transportation, among others. Vol. 2 inciudes making change, restaurant checks, wage deductions, and figuring percentages, among others.

$2.75 Vol. 1 I.G. $1.00
$2.75 Vol. 2 I.G. $2.75

WHEN ARE WE EVER GONNA HAVE TO USE THIS?

Opportunities for Learning, Inc.

This is a book for practical problems that illustrates how mathematics concepts are used in the real world. Eighty-eight pages of problems are listed by topic, and within the topic they are listed alphabetically by occupation. A 19" x 25" color poster showing uses for mathematics in more than 100 occupations is included. The grade level is geared to 7-12.

$11.95

ALGEBRA SIMPLIFIED AND SELF-TAUGHT
D. Frieder
Arco Publishing Co.

This text presents a complete introduction to algebra fundamentals and presents the subject in an easily understandable format for students and test-takers. Step-by-step explanations of all concepts and procedures are offered with model problems and worked-through solutions, topic review tests, and numerous diagrams illustrating all important points. Areas covered include: numerical and algebraic expressions, signed numbers, polynomials, linear equations and inequalities, factoring, square roots, algebraic functions, and word problems. 144 p.

$5.95

APPLIED DESCRIPTIVE GEOMETRY, 5th Edition
F. M. Warner and M. McNeary
Gregg/McGraw-Hill

This text makes use of applied descriptive geometry in orthographic drawing, fundamental auxiliary views, point, line, and plane problems, revolution, vector geometry, curved lines and surfaces, and intersection of surfaces. Practice problems and applied problems are included. 256 p.

$22.95/18.36

ARITHMETIC AND ALGEBRA, 2nd Edition
D. P. Benice
Prentice-Hall

This text provides a smooth and natural transition from arithmetic to basic algebraic concepts and methods. It emphasizes connections between arithmetic and algebra to offer a flexible basis for introductory algebra courses. Easy-to-read explanations, with many clear examples, guide students through the material, showing all steps and omitting unneeded theory. This edition is reorganized to be studied without references back to arithmetic. A chapter on the metric system is also included. 448 p.

$19.95

BEGINNING ALGEBRA: A DIRECT APPROACH
Tobey
Prentice-Hall

This is a comprehensive elementary algebra textbook appropriate for a first course or remedial/developmental studies. Each concept is explained in a simple language and supported by a wealth of examples. Word problems are covered in a special chapter and then incorporated throughout the text. Stress has been placed on learning algebra by working a good variety of practice problems and homework exercises. An optional chapter reviews basic arithmetic skills.

$ N/L

ELEMENTARY ALGEBRA BY EXAMPLE
W. F. Brett and M. Sentlowitz
Houghton Mifflin

Developed to help students learn and review elementary algebra in preparation for intermediate algebra, this text introduces algebraic operations and concepts through practical, real-life examples. With step-by-step instructions, and clearly written explanations and chapter summaries, the text is suitable for self-paced or lecture courses. The abundance of problems includes chapter exercises, chapter self-tests with answers, cumulative review exercises, and review tests. Appendices cover review of arithmetic and metrics. 497 p.

$22.50 I.G. $ N/L

INTRODUCTION TO ALGEBRA
E. A. Price
Arco Publishing Inc.

This thorough handbook is especially useful for review purposes. The text combines theory and practice in a clear, easy-to-follow presentation. The book is designed for teenagers and would be useful for reference, review and study. 224 p.

$2.95

INTRODUCTORY ALGEBRA: AN APPLIED APPROACH
R. N. Aufman and V. C. Barker (1983)
Houghton Mifflin

Basically designed for entering college students, this program gives a comprehensive coverage of basic introductory algebra. The text is clearly organized with a unit-section-objective structure. There are 12 units and 124 objectives. The text integrates the mastery of skills, concepts, and applications and provides ample problems for reinforcement. The Instructor's Annotated Edition contains answers to all the problems. 506 p.

$22.95 I.G. $23.50

INTRODUCTORY ALGEBRA AND RELATED TOPICS FOR TECHNICIANS
K. E. King
Prentice-Hall

This text provides a complete course in basic algebra plus the additional topics of powers of ten, scientific notation, measurement, the metric system, and formulas. A step-by-step approach divides material into 42 learning units called "Bites". Each Bite begins with a rationale, objectives, and pre-test. They are concluded with a post-test. All concepts are explained with numerous detailed examples and extensive student problems are included. Cartoons and marginal notes are utilized to assist retention.

$18.95

KEY TO FRACTIONS/ALGEBRA/GEOMETRY
P. Rasmussen
Key Curriculum Project

This series of worktexts is designed to take students (grades 4-12) from a basic, fundamental level and proceed step-by-step, allowing students to work at their own pace. One concept per page is presented with minimal reading requirements. Abundant exercises, practice tests and frequent review pages assist students in comprehension. Answers and teacher's notes are available. There are four books each in the Key to Fractions and Key to Algebra programs and eight books in the Key to Geometry.

$1.25 each/$5.00 set Key to Fractions
$1.00 each/$4.00 set Key to Algebra
$1.50 for Books 1-6; Key to Geometry
$4.50 for Books 7 & 8/$18.00 set

TECHNICAL DESCRIPTIVE GEOMETRY, 2nd Edition
B. L. Wellman
Gregg/McGraw-Hill

This text includes code of lines and symbols, correction symbols for instructor's use, multiview engineering drawings, auxiliary views, points and lines, plane surfaces, single-curved surfaces, warped surfaces, double-curved surfaces, intersection of surfaces and development of surfaces. Vector applications are also included as well as geology and mining applications. Problems are given to test comprehension.

$27.95/22.36

TECHNICAL MATHEMATICS WITH CALCULUS, 3rd Edition
H. S. Rice and R. M. Knight
Gregg/McGraw-Hill

This text emphasizes the use of mathematical techniques which are applicable to electrical, mechanical, and other technologies. A multitude of problems are incorporated. Coverage includes calculus and techniques of integration and differentiation. Difficulty of coverage is logically organized from algebra through calculus. Five-place tables, including those for integration and differentiation, are included. PREREQUISITE: High school algebra. 954 p.

$25.95/20.76 I.G. $3.20 Answer Key $2.40

BASIC MATHEMATICS
W. C. Brown (1983)
Goodheart-Willcox Company, Inc.

This resource is a combination of text which tells and shows "how" and a workbook which provides typical problems. It is intended for students, apprentices, adult workers and where there is a need to review and improve mathematical skills. A low reading level is employed which is especially appropriate for students of low ability (or interest). Spaces are provided in the book to work the problems and write the answers. Metrics are included. 128 p.

$5.60/4.20

BASIC MEASUREMENT MATH

Prentice Hall Media

This resource is a multi-media composed of three sections in color filmstrips, cassettes, program guide and reproducible masters. The first section, "Linear Measurements", demonstrates the practical skill of using the ruler in a variety of forms with practical application to vocational studies. The mechanics of placing the ruler, reading measurement, and the mathematics of linear unit conversion are discussed and graphically illustrated. "Perimeter and Surface Measurements" considers the principles of perimeter, area and square units and stresses the practical applications of each. "Volume Measurements" leads from everyday uses of volume and its relationship to capacity to the teaching of cubic units of measurements. Abstract concepts are clearly explained in concrete terms and formulas are provided for calculations.

$132.00 (3 Filmstrips, 3 cassettes, program guide, masters)

LEARNING ABOUT MEASUREMENT
J. D. Wool and R. J. Bohn
Frank E. Richards Pub. Co., Inc.

This workbook deals with common measurement concepts. A partial content includes: kinds of measurement, tools of measurement, solid and liquid measure, the ruler, time as a measure, table of measurement, metric measurement.

$2.75

MEASURING
R. S. Hinrichs
Delmar Publishers, Inc.

This workbook provides the student with numerous practical exercises designed to develop the skills of measuring. Each measuring section begins with a diagnostic test. Numerous exercises and a final test are included in each section. The student does the measuring exercises and takes the tests right in the workbook. Metric measurement is also included. 98 p.

$7.80/5.85

MEASURING THE METRIC WAY
R. A. Lay
Frank E. Richards Pub. Co., Inc.

This is a basic workbook designed to introduce the Metric System: measuring length, distance, speed, weight, liquid and temperature the metric way. It deals with only the most commonly used metric units--those considered essential for consumer survival in the coming metric world. Included are diagrams, questions and answers, things to do and Metric Conversion Tables.

$2.75

THINK METRIC

Southwestern Publishing Co.

This self-teaching text-workbook is designed to give students practice using the metric denominates that are becoming more widely used in our economy. It provides review of the use of decimals and then concentrates on various base units of measurement characteristic of the metric system. The material is structured so that students can proceed at their own pace. These materials are ideal for use with the sound filmstrips but they may be used independently. The teacher's manual appears in the back of the text.

$3.15 text-workbook
$150.00 sound filmstrips

UNDERSTANDING THE METRIC SYSTEM

Society for Visual Education, Inc.

This set of four full-color filmstrips is designed to aid the intermediate to junior high level student understand the concept of metric measurement. The filmstrips are take-offs of TV game shows in which TV contestants race against time and each other to answer questions that involve many types of metric measure: area/volume, capacity/temperature, and mass. The game formats hold interest and help students learn basic terms and concepts. Review frames at the end of each filmstrip reinforce what they learn. A combination of photography and cartoon figures add colorful visual variety. Each filmstrip is about 13½ minutes. They may be purchased individually. The sound cassette is priced separately.

$112.00	Complete Set (4 f/s; 4 cassette tapes, 1 guide)
$19.00 f/s; $13.00 tape	Linear Measure: The Meter Beaters
$19.00 f/s; $13.00 tape	Area and Volume: What's My Size?
$19.00 f/s; $13.00 tape	Liquid Capacity/Temperature: Cheat the Clock
$19.00 f/s; $13.00 tape	Mass: Hollywood Chairs

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Teacher Resource Materials

ACTIVE LEARNING EXPERIENCES FOR TEACHING ELEMENTARY SCHOOL MATHEMATICS
H. H. Lerch (1981)
Houghton Mifflin

Designed to accompany the text, Teaching Elementary School Mathematics by Lerch, this handbook is a collection of nearly 700 activities, projects, and games for an active learning approach program or as supplementary learning experiences. Following the text's organization, the activities are in 5 groups: numeration and notation, operations on collections of objects, operations on numbers using numerals, geometry, and measurement. A chart for each learning experience lists the purpose of the activity, materials needed, the type of learning experience, a question or direction-starting phrase, and an ordering or page number for each suggested activity. Suitable as a resource for pre-service or in-service teachers. 461 p.

$14.50

BASIC SKILLS IMPROVEMENT - A HANDBOOK FOR READING, MATH, WRITING AND ORAL COMMUNICATION
The Vocational Studies Center
University of Wisconsin - Madison

This resource for schools and communities is for use in planning and implementing basic skills improvement programs. It addresses program planning, coordination, evaluation, use of microcomputers, and more.

$27.00

DIAGNOSTIC TESTS FOR MATH COMPETENCIES - Duplicating Masters

Chaselle, Inc.

These duplicating master activities prepare students in grades 7-12 for mathematics competency exams by using step-by-step lessons to introduce vocabulary and specific word problems within a real-life situation. In addition to specific mathematics skills, students learn to deal with problems like budgeting, comparison shopping and taxes. The set includes 32 masters.

$13.95

ELEMENTARY MATHEMATICS: A FUNDAMENTALS AND TECHNIQUES APPROACH
S. R. Filippone and M. Z. Williams (1976)
Houghton Mifflin

This text helps prospective elementary teachers comprehend the mathematical concepts and basic skills they will teach. It includes all topics normally found in the elementary school curriculum, and deemphasizes the "new math" rhetoric. 448 p.

$25.95

ENRIGHT DIAGNOSTIC INVENTORY OF BASIC ARITHMETIC SKILLS
B. E. Enright
Curriculum Associates, Inc.

The Enright Diagnostic Inventory is a simple instrument that thoroughly assesses, diagnoses, and analyzes 144 basic computation skills. The Inventory tells the student's starting point for testing, mastery of number facts, knowledge of particular skills, precise reasons for any errors that occur. Any classroom teacher or educational diagnostician may administer and interpret the Inventory. Individuals or groups of students may be tested. A video tape for program introduction and in-service, complete with detailed program description and free workshop materials, is available on loan at no charge for two weeks.

$ N/L

HOW TO USE A POCKET CALCULATOR: A GUIDE FOR STUDENTS
H. Mullish
Arco Publishing Inc.

This reference describes the different features found on calculators and shows how these features can best be utilized in performing the calculations required in high school and college mathematics and sciences courses. 176 p.

$8.95 Cloth $4.95 Paper

IDENTIFICATION OF GENERALIZABLE SKILLS IN SECONDARY VOCATIONAL PROGRAMS (Final Report)
Dr. James P. Greenan
University of Illinois, Dept. of Vo-Tech Education

The "Generalizable Skills" project was undertaken to develop strategies and procedures for assessing the mathematics skills of students in secondary vocational programs. The Final Report was designed to acquaint teachers, counselors, administrators, and other school personnel with the generalizable skills requirements which are basic to, necessary for success in, and transferable (common) within and across secondary vocational training programs. The content provides information for subsequent delivery of assessment, instruction, and support services to students including those who may have functional learning problems. The report also provides the methods, results, and recommendations of the study that identified the generalizable skill areas and skills.

$ N/C

IDENTIFICATION OF MATHEMATICS AND SCIENCE COMPETENCIES REQUIRED IN OCCUPATIONS WITHIN VOCATIONAL PROGRAMS

W. H. Hinely, Florida State University

The purpose of this project is to identify which mathematics and science skills are required in various program areas, based on occupational task lists. The mathematics/science competency lists will be used (1) to inform students and teachers of the specific skills required in a given program area; (2) by curriculum planners and developers; and (3) for planning pre-service and in-service teacher training.

$ N/L

IMPROVING BASIC SKILLS: VOLUME I - A COLLECTION OF WISCONSIN PROGRAMS FOR IMPROVING THE BASIC SKILLS OF UNDEREDUCATED YOUTH AND ADULTS
The Vocational Studies Center
University of Wisconsin - Madison

This collection provides over 30 descriptions of basic skills programs in K-12 schools, community organizations, correctional institutions, vocational education systems and colleges and universities.

$10.00

IMPROVING BASIC SKILLS: VOLUME II - A COLLECTION OF NATIONAL PROGRAMS AND RESOURCES FOR IMPROVING THE BASIC SKILLS OF UNDEREDUCATED YOUTH AND ADULTS
The Vocational Studies Center
University of Wisconsin - Madison

This second volume describes 26 National Diffusion Network selected programs. It includes hands-on materials from programs, and describes national organizations and local programs working to combat functional illiteracy.

$15.00

IMPROVING BASIC SKILLS: VOLUME III - A COLLECTION OF PROGRAMS AND RESOURCES SELECTED FOR THE GOVERNOR'S CONFERENCE ON BASIC SKILLS
The Vocational Studies Center (December 1981)
University of Wisconsin - Madison

In this third and last volume of the IBS series, descriptions of 52 programs selected as effective in Wisconsin are presented. Also included are classroom resources and materials used with the programs.

$15.00

INVENTORY OF ESSENTIAL SKILLS
A. H. Brigance
Curriculum Associates

This program is presented in an introductory video available at no charge through the publishers. The video gives an indepth explanation of the Inventory and its uses. An actual demonstration creates a workshop-style in-service that emphasizes the total effectiveness of the diagnostic program. The Inventory itself consists of 186 skill sequences and 10 rating scales; it assesses minimal academic and applied competencies in reading, language arts, and mathematics. The rating scales measures applied skills in communication, job interview, etc. It is designed for grades 4-11.

$ N/C Video

LEARNING RESOURCE CENTER IN VOCATIONAL AND TECHNICAL EDUCATION

CIMC, Oklahoma

A guide for learning resource center coordinators and instructors who are required to deliver services to the handicapped and/or disadvantaged in vocational education and in basic education related to vocational education. The publication is an effort to lessen the crisis in implementing and evaluating supportive educational programs that assist disadvantaged and handicapped secondary and adult students in succeeding in regular vocational programs. This is a useful tool for supervisors or instructors wishing to establish a learning resource center within a school system. The guide outlines facility requirements, equipment, and suggested staff personnel.

$3.00 Teacher's Manual

MASTERING MULTIPLE-CHOICE MATHEMATICS TESTS
S. M. Smith
Arco Publishing Inc.

This text provides two essential ingredients for scoring high on any high school mathematics test: a comprehensive review of high school mathematics, and an extensive analysis of the kinds of errors most often made on multiple-choice mathematics tests with sound advice on how to avoid them. Included is a concise review of the essentials of algebra, geometry and trigonometry as well as extensive practice with the kinds of questions most likely to come up on mathematics exams. The practice sections are neatly categorized and each set of questions is followed by both solutions and explanations. 192 p.

$6.95

MATH AMUSEMENTS IN DEVELOPING SKILLS
VOLUMES 1 & 2
A. Clack and C. Leitch
Midwest Publications

These books provide some exciting supplementary materials for mathematics students, with a combination of extensive practice exercises embedded in cross number puzzles, line designs, decodes, graphs, optical illusions and others. Volume 1 contains whole numbers, fractions, and mixed numbers, decimals, Roman numbers, measurement and metrics, holiday puzzles, and answer sheets. Volume 2 contains whole numbers, radicals and exponents, numeration and number theory including least and greatest common factors, fractions, decimals, proportion and ratios, integers, measurement and geometry, puzzles, and answer sheets.

$13.95 Vol. 1
$5.95 Vol. 2

THE MATHEMATICAL EXPERIENCE
P. J. Davis and R. Hersh
Houghton Mifflin

This book is both a description of the entire world of mathematics--its history, processes, personalities, and philosophy--and an irresistible invitation to share that world's joys. The authors have created an immensely readable, visually appealing volume for scholars and students. Biographical sketches of the leading personalities of the world of mathematics are interwoven with accessible, yet authoritative discussions of their work. Appropriate for history of mathematics, overview of mathematics, and philosophy of mathematics courses. 464 p.

$ N/L

MATHEMATICAL GAMES, PUZZLES, AND FALLACIES
S. H. Lamb
Arco Publishing Inc.

A concise book which collects the mathematical and arithmetical puzzles, games, fallacies, and tests that have fascinated people over the centuries. 80 p.

$1.95

MATHEMATICS IN VOCATIONAL EDUCATION
Corvallis Schools and Oregon State University
Dr. Art Terry

This resource guides the non-mathematics teacher in helping students master the mathematics basics directly related to success in vocational courses. An orientation section addresses planning for teaching. Chapters on measurement, fractions, geometry, and other mathematics concepts describe the concepts, suggest ways of mastering the concept, and suggest application-oriented activities.

$4.50

OVERCOMING MATH ANXIETY
S. Tobias
Houghton Mifflin

This book leads the reader from understanding mathematics anxiety--to conquering it. The author explains why mathematics anxiety is so common, particularly in women but also in men. She describes the severely limiting effect mathematics avoidance has on education, careers, and in personal life. From word problems to calculus, the book covers many of the most troublesome mathematics concepts and provides anxiety-reducing approaches to solving them.

$ N/L

REGIONAL INSTITUTES IN INTEGRATING BASIC READING, WRITING, AND MATHEMATICS SKILLS IN HOME ECONOMICS PROGRAMS

Dr. M. Crabtree, Florida International University

This publication discusses the regional institutes that were held across the state of Florida to disseminate materials which were designed to further the integration of basic skills in reading, writing, and mathematics into home economics curricula. The materials being distributed were developed during earlier projects and consisted of two volumes - Home Economics Curriculum Competency-Based Modules for Integrating Basic Skills in Reading, Writing, and Mathematics, and a Teacher's Guide. A follow-up study of the implementation of these modules was to be made after the institutes had been completed.

$ N/L

RESOURCE DIRECTORY FOR TEACHER EDUCATION IN VOCATIONAL SPECIAL NEEDS
T. L. Wentling and others (1978)
Minnesota Research & Development Center for Vocational Education

This is a directory of materials that are applicable to all areas of vocational education, not those targeted at specific disciplines. It is intended for use by anyone interested in expanding their knowledge in the area of working with special needs students in vocational programs. Materials cover a wide range of topics concerning special needs students.

$ N/L

RESOURCE DIRECTORY FOR VOCATIONAL PROFESSIONALS WITH SPECIAL NEEDS STUDENTS

Instructional Materials Laboratory

This resource lists and describes materials available to teachers, counselors, and administrators working with special needs students. Descriptions include: bibliography, type of media, cost range, descriptors, user, sources, and annotation. Cross-referenced for ease of use. 480 p.

$14.00

SOLVING MATHEMATICAL WORD PROBLEMS
B. S. Lawing (1982)
Delmar Publishers, Inc.

This text-workbook develops the ability to translate word problems into mathematical form for computation. Examples are used to demonstrate each skill, and the student is guided through the solution of word problems step-by-step. This book may also be used in independent study. 128 p.

$8.60

TEACHING ELEMENTARY SCHOOL MATHEMATICS: AN ACTIVE LEARNING APPROACH
H. L. Lerch (1981)
Houghton Mifflin

This text, along with the activities handbook "Active Learning Experiences" (see above), demonstrates the active learning approach to teaching elementary school mathematics that is rooted in the use of physical object models for mathematical experience. It balances strategies and methods of teaching content topics with the general issues of the scope and analysis of elementary mathematics programs and the selection of teaching methods procedures. The content of elementary mathematics is organized into 5 major areas and these are developed by themes, performance objectives, and strategies for teaching. Numerous figures and models display mathematical concepts, plus appendices give resources for mathematical materials. 512 p.

$22.95 I.G. $ N/L

TEACHING MATHEMATICS: METHODS AND CONTENT
F. K. Reisman (1981)
Houghton Mifflin

This text emphasizes the practical aspects of mathematics instruction, such as activities and mini-lessons, as well as the fundamental mathematical processes. Mastery of the basics and practical applications (ranging from making changes to determining probabilities) is the primary focus. Featured are approximately 480 practical mini-lesson plans and suggested activities that illustrate the methodology and that serve as a diagnostic device for mastering mathematics content and instruction, the mathematics curriculum, classroom teaching, exceptional children, assessment, and diagnosis. Also discussed are growth factors in children's learning, individualized instruction, and direct teaching. Appropriate for elementary and middle-school mathematics methods courses. 512 p.

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Appendices

APPENDIX A

GENERALIZABLE MATHEMATICS SKILLS

KEY

■ - High Generalizability ($\bar{x}$ = 5.01 - 7.00)

▒ - Medium Generalizability ($\bar{x}$ = 3.00 - 5.00)

□ - Low Generalizability ($\bar{x}$ = 1.00 - 2.99)

Mathematics Skills

Whole Numbers

1. Read, write, and count single and multiple digit whole numbers
2. Add and subtract single and multiple digit whole numbers
3. Multiply and divide single and multiple digit whole numbers
4. Use addition, subtraction, multiplication, and division to solve word problems with single and multiple digit whole numbers
5. Round off single and multiple digit whole numbers

Fractions

6. Read and write common fractions
7. Add and subtract common fractions
8. Multiply and divide common fractions
9. Solve word problems with common fractions

Decimals

10. Carry out arithmetic computations involving dollars and cents
11. Read and write decimals in one and more places
12. Round off decimals to one or more places
13. Multiply and divide decimals in one or more places
14. Add and subtract decimals in one or more places
15. Solve word problems with decimals in one or more places

Percent

16. Read and write percents
17. Compute percents

Agricultural Occs.	Agricultural Mechanics
	Ornamental Horticulture
	Agricultural Cooperative Education
	Conservation
	Cooperative Work Training (CWT)
	All Agricultural Occupations Programs
Business, Marketing and Management Occs.	Advertising Services
	General Merchandise (Sales)
	Personal Services (Sales)
	Marketing Cooperative (D.E.)
	Accounting and Computing Occupations
	Business Data Processing Systems
	Computer Programming
	Filing, Office Machines
	General Office Clerking
	Executive Secretary Science
	Secretarial
	Office Occupations Cooperative Education
	Cooperative Work Training (CWT)
	Word Processing
	Hospitality (Travel and Travel Service)
	Clerical Occupations
	Office Occupations
	All Bus., Market., and Mgmt. Occupations Programs
Health Occupations	Dental Assisting
	Practical Nursing
	Nurse Aide
	Health Care Aide
	Medical Assisting
	Health Aide
	Medical Records
	Health Occupations Cooperative Education
	Cooperative Work Training (CWT)
	Health Occupations
	All Health Occupations Programs
Home Economics Occs.	Child Care
	Clothing Management, Production, and Service
	Food Management, Production, and Service
	Home Economics Cooperative Education
	Interior Decorating
	Child Development
	Cooperative Work Training (CWT)
	All Home Economics Occupations Programs
Industrial Occupations	Air Conditioning
	Heating
	Appliance Repair
	Automotive Services
	Body and Fender Repair
	Auto Mechanics
	Aircraft Maintenance
	Commercial Art
	Construction and Building Trades
	Carpentry
	Industrial Maintenance
	Diesel Mechanic
	Drafting
	Electrical Occupations
	Industrial Electrician
	Electronic Occupations
	Radio/Television Repair
	Graphic Arts
	Machine Shop
	Combine Metal Trades
	Welding
	Tool and Die Making
	Cosmetology
	Refrigeration
	Small Engine Repair
	Millwork and Cabinet Making
	Industrial Cooperative Education
	Cooperative Work Training (CWT)
	Truck Driving
	Warehousing
	Home Remodeling and Renovation
	Custodial Maintenance
	Communications and Media Specialist
	All Industrial Occupations Programs
	ALL VOCATIONAL TRAINING AREAS AND PROGRAMS

KEY

■ - High Generalizability ($\bar{x}$ = 5.01 - 7.00)

▒ - Medium Generalizability ($\bar{x}$ = 3.00 - 5.00)

□ - Low Generalizability ($\bar{x}$ = 1.00 - 2.99)

Mixed Operations
18. Convert fractions to decimals, percents to fractions, fractions to percents, percents to decimals, decimals to percents, common fractions or mixed numbers to decimal fractions, and decimal fractions to common fractions or mixed numbers
19. Solve word problems by selecting and using correct order of operations
20. Perform written calculations quickly
21. Compute averages
Measurement and Calculation
22. Read numbers or symbols from time, weight, distance, and volume measuring scales
23. Use a measuring device to determine an object's weight, distance, or volume in standard (English) units
24. Use a measuring device to determine an object's weight, distance, or volume in metric units
25. Perform basic metric conversions involving weight, distance, and volume
26. Solve problems involving time, weight, distance, and volume
27. Use a calculator to perform basic arithmetic operations to solve problems
Estimation
28. Determine if a solution to a mathematical problem is reasonable

Vocational Training Areas and Programs

Agricultural Occs.	Agricultural Mechanics
	Ornamental Horticulture
	Agricultural Cooperative Education
	Conservation
	Cooperative Work Training (CWT)
	All Agricultural Occupations Programs
Business, Marketing and Management Occs.	Advertising Services
	General Merchandise (Sales)
	Personal Services (Sales)
	Marketing Cooperative (D.E.)
	Accounting and Computing Occupations
	Business Data Processing Systems
	Computer Programming
	Filing, Office Machines
	Ceneral Office Clerking
	Executive Secretary Science
	Secretarial
	Office Occupations Cooperative Education
	Cooperative Work Training (CWT)
	Word Processing
	Hospitality (Travel and Travel Service)
	Clerical Occupations
	Office Occupations
	All Bus., Market., and Mgmt. Occupations Programs
Health Occupations	Dental Assisting
	Practical Nursing
	Nurse Aide
	Health Care Aide
	Medical Assisting
	Health Aide
	Medical Records
	Health Occupations Cooperative Education
	Cooperative Work Training (CWT)
	Health Occupations
	All Health Occupations Programs
Home Economics Occs.	Child Care
	Clothing Management, Production, and Service
	Food Management, Production, and Service
	Home Economics Cooperative Education
	Interior Decorating
	Child Development
	Cooperative Work Training (CWT)
	All Home Economics Occupations Programs
Industrial Occupations	Air Conditioning
	Heating
	Appliance Repair
	Automotive Services
	Body and Fender Repair
	Auto Mechanics
	Aircraft Maintenance
	Commercial Art
	Construction and Building Trades
	Carpentry
	Industrial Maintenance
	Diesel Mechanic
	Drafting
	Electrical Occupations
	Industrial Electrician
	Electronic Occupations
	Radio/Television Repair
	Graphic Arts
	Machine Shop
	Combine Metal Trades
	Welding
	Tool and Die Making
	Cosmetology
	Refrigeration
	Small Engine Repair
	Millwork and Cabinet Making
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	Cooperative Work Training (CWT)
	Truck Driving
	Warehousing
	Home Remodeling and Renovation
	Custodial Maintenance
	Communications and Media Specialist
	All Industrial Occupations Programs
	ALL VOCATIONAL TRAINING AREAS AND PROGRAMS